
तेल के ड्रमों के लिए हाथ की ट्रॉली —
विशिष्टि
(दूसरा पुनरीक्षण)

Hand Trolley for Oil Drums —
Specification
(Second Revision)

ICS 53.040.01, 53.040

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FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Earth Moving Equipment and Material Handling Sectional Committee had been approved by the Mechanical Engineering Division Council.

This standard was first published in 1976 and revised in 1996. The present revision has been taken up with a view to incorporating the modifications found necessary as a result of experience gained in the use of this standard. Also, in this revision, the standard has been brought into latest style and format of Indian Standards, and references to Indian Standards, wherever applicable have been updated.

Liquids such as petroleum products and edible oils are stored in 200 litres oil drums. Such drums with their contents are heavy, unwieldy and present difficulties in moving them from place to place with manual effort. This standard is intended to help the movement and dispensing of the drums in the work-sites and factory premises.

The composition of the Committee responsible for the formulation of this standard is given in Annex B.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard***HAND TROLLEY FOR OIL DRUMS — SPECIFICATION***(Second Revision)***1 SCOPE**

This standard covers the principal dimensions and requirements for hand trolley for handling standard 200 liters drums, in the work sites and factory premises and is not applicable over a long distance or over public roads.

2 REFERENCES

The standards listed in Annex A contain provisions, which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

3 DESIGN

3.1 A typical design of a trolley for carrying oil drums is given in Fig. 1 for guidance only.

3.2 The trolley shall be capable of accommodating 200 liters drum of shape and dimensions conforming

to IS 1783 (Part 1) or IS 1783 (Part 2).

3.3 When stationary, the frame of the trolley shall rest on the wheels and strut.

4 CONSTRUCTION**4.1 Frame**

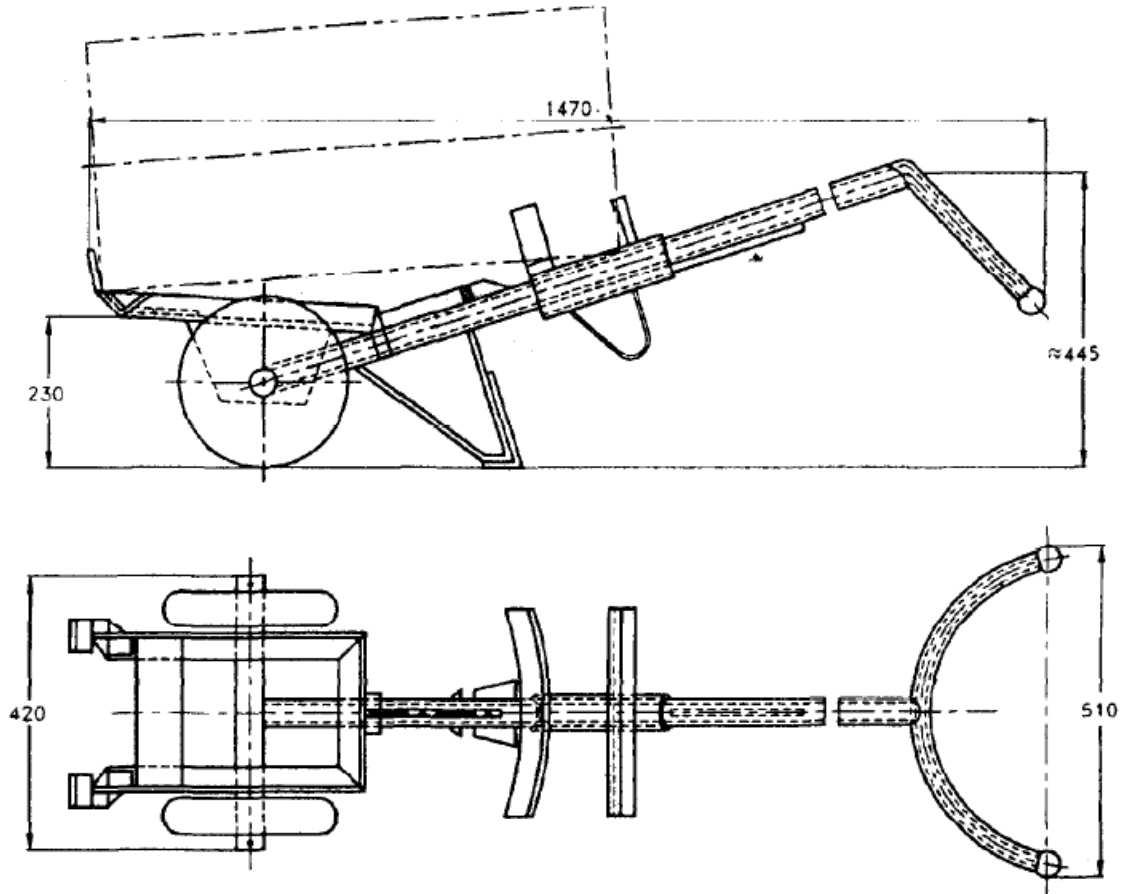
The frame shall be made out of tubular sections conforming to IS 1239 (Part 1), provided with suitable sliding arrangement for handling the drum in position while shifting.

4.2 Axle

The axle shall be so positioned that it would be possible to balance the trolley while moving it and shall be made from round bar conforming to IS 2062.

4.3 Handle

The handle shall conform in shape and size to the details given in Fig. 1, and shall be made of mild steel, tubular sections shall conform to IS 1239 (Part 1).



All dimensions are in mm
FIG. 1 HAND TROLLEY FOR OIL DRUMS

4.4 Strut

Strut is a supporting frame work made from round steel bar or mild steel flats conforming to IS 2062.

5 DIMENSIONS AND TOLERANCES

5.1 The overall dimensions of a 2.5 kN trolley are given in Fig. 1 for guidance only.

5.2 Tolerances on all overall dimensions of the trolley shall be within ± 5 mm.

6 LOAD CARRYING CAPACITY

The trolley shall be capable of carrying 2.5 kN load.

7 WHEELS

The wheels used in the trolley shall conform to IS 17522 rubber tyred, with suitable bearing arrangement as agreed to between the purchaser and the manufacturer.

8 WORKMANSHIP AND FINISH

8.1 The trolley shall be free from warp in structural frame work.

8.2 Each trolley shall be free of rust, millscale, dirt, oil, etc, and thoroughly cleaned, if needed with chemical solution and rinsed. Subsequently each trolley shall be given one coat of red oxide primer (*see* IS 2074) and then two coats of synthetic enamel paint (*see* IS 2932) in colour/shade as agreed (*see* IS 5).

8.3 The painted surface shall be free from wrinkles, irregular painting, dripping, scratches, and irregularities in colouring.

9 PERFORMANCE

9.1 When the trolley is traversed over a smooth road loaded with 120 percent of permissible carrying load, wheels shall turn smoothly and satisfactorily.

9.2 The push handle shall withstand a minimum horizontal force equal to 230 N plus 2 percent rated capacity without breaking or permanently bending.

10 MARKING

10.1 The Hand trolley for oil drums may be marked with the following information in a visible position:

- a) Indication of the source of manufacture;
- b) Load carrying capacity, in kN;

- c) Manufacturer's serial number; and
- d) Year of manufacture.

10.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

ANNEX A

(Clause 2)

LIST OF REFERRED STANDARDS

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
IS 5 : 2007	Colours for ready mixed paints and enamels (<i>sixth revision</i>)		Specification (<i>seventh revision</i>)
IS 1239 (Part 1) : 2004	Steel tubes, tubulars and other wrought steel fittings — Specification: Part 1 Steel tubes (<i>sixth revision</i>)	IS 2074 : 2015	Ready mixed paint, air drying, red oxide — Zinc chrome, priming — Specification (<i>third revision</i>)
IS 1783	Drums large, fixed ends — Specification:	IS 2932 : 2013	Enamel, synthetic, exterior: (a) undercoating (b) finishing — Specification (<i>fourth revision</i>)
(Part 1) : 2014	Grade A drums (<i>fourth revision</i>)		
(Part 2) : 2014	Grade B drums (<i>fourth revision</i>)	IS 17522 : 2021/ ISO 22878 : 2004	Castors and wheels — Test methods and apparatus
IS 2062 : 2011	Hot rolled medium and high tensile structural steel —		

ANNEX B*(Foreword)***COMMITTEE COMPOSITION**

Earth Moving Equipment and Material Handling Sectional Committee, MED 07

<i>Organization</i>	<i>Representative(s)</i>
BEML Limited, Bengaluru	SHRI V. SEKAR (<i>Chairperson</i>)
Airports Authority of India, New Delhi	SHRI K. S. KUNWAR SHRI JASPAL SINGH (<i>Alternate</i>)
Automotive Research Association of India, Pune	SHRI A. AKBAR BADUSHA
BEML Limited, Bengaluru	SHRI HEMANT KUMAR
Bharat Coking Coal Limited, Dhanbad	SHRI ARUN NAND SAHAY SHRI CHANDRA SHEKHAR S. I. (<i>Alternate</i>)
Bharat Heavy Electrical Limited, New Delhi	SHRI G. BHAGCHANDANI SHRI S. K. BHAUMIK (<i>Alternate</i>)
Caterpillar India Private Limited, Chennai	SHRI K. REJI JOSE SHRI V. BHASKARAN (<i>Alternate</i>)
Cement Corporation of India Limited, New Delhi	SHRI A. K. SRIVASTAVA SHRI ANURAG KUMAR SAINI (<i>Alternate</i>)
Central Mine Planning and Design Institute Limited, Ranchi	SHRI PARAG MAJUMDAR SHRI PRAVEEN K. SINHA (<i>Alternate</i>)
Directorate General Factory Advice Service and Labour Institutes, Mumbai	SHRI SUMIT ROY
Directorate General of Mines Safety, Dhanbad	SHRI D. B. NAYAK SHRI VIJAY YADAORAO BARAPATRE (<i>Alternate</i>)
Directorate General of Quality Assurance, Ministry of Defense, New Delhi	LT COL SIDHARTH KHATTRI SHRI RAGHUBIR SINGH (<i>Alternate</i>)
Engineers India Limited, New Delhi	SHRI K. C. PAIKAR SHRI R. R. SHRIVASTAVA (<i>Alternate</i>)
Epiroc Mining India Limited, Nashik	SHRI PRAKASH GORE
Escorts Construction Equipment Limited, Faridabad	SHRI FAIZ AHMAD MS RUPALI SHARMA (<i>Alternate</i>)
Fact Engineering and Design Organization, New Delhi	SHRI R. K. PALLAI SHRI JUBY CHANDY (<i>Alternate</i>)
Heavy Engineering Corporation Limited, Ranchi	SHRI ARAVIND DOSS SHRI AMIT PAL (<i>Alternate I</i>) SHRI VIJAY KUMAR (<i>Alternate II</i>)
Indian Construction Equipment Manufacturers Association, New Delhi	SHRI K. V. KRISHNAMURTHY
Indian Institute of Technology (ISM), Dhanbad	PROF L. A. KUMARASWAMIDHAS
JCB India Limited, New Delhi	SHRI SAURABH DALELA SHRI VIVEK RAWAT (<i>Alternate</i>)
John Deere India Private Limited, Mumbai	SHRI KARTHIK KALIAPPAN SHRI RAJ ANAND (<i>Alternate</i>)
Komatsu India Private Limited, Bengaluru	SHRI M. RAJENDRAN SHRI VIKRANT SHARMA (<i>Alternate</i>)

<i>Organization</i>	<i>Representative(s)</i>
L & T Komatsu Limited, Bengaluru	SHRI G. S. NARAYANA SHRI K. KESHAVA (<i>Alternate</i>)
Mahindra Construction Equipment, Chakan	SHRI GOPLAKRISHNA RAJENDRA
Manitou India Limited, Greater Noida	SHRI ATUL K. SINGHAL
McNally Bharat Engineering Company Limited, Kolkata	SHRI ASHOK KUMAR BOSE SHRI SANDIPAN DAW (<i>Alternate</i>)
Ministry of Heavy Industries and Public Enterprises, Department of Heavy Industry, New Delhi	SHRI SUSHIL LAKRA
Ministry of Shipping, New Delhi	SHRI ANIL PRUTHI SHRI RAMJI SINGH (<i>Alternate</i>)
Mumbai Port Trust, Mumbai	SHRI DILIPVISHWANATHAN SHRI PANDIAN SEKAR (<i>Alternate</i>)
NTPC Limited, New Delhi	SHRI MADHUKAR ANAND SHRI P. S. CHATTERJEE (<i>Alternate</i>)
National Council for Cement and building Materials, Faridabad	SHRI KAPIL KUKREJA SHRI SAURABH BHATNAGAR (<i>Alternate</i>)
National Mineral Development Corporation, Hyderabad	SHRI S. J. RAO SHRI S. K. ROY (<i>Alternate</i>)
Office of Development Commissioner (MSME), New Delhi	SHRI SUSANTA KUMAR SOM SHRI SUVANKAR SANTRA (<i>Alternate</i>)
Project and Development India Limited, Noida	SHRI NARENDRA SINGH SHRI ABHIJIT MAHATA (<i>Alternate</i>)
Volvo Construction Equipments India Private Limited, Bengaluru	SHRI SAI PRASAD POLIPALLI SHRI K. RAGHURAMAN (<i>Alternate</i>)
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Member Secretary
SHRI SHUBHAM YADAV
SCIENTIST 'B'/ASSISTANT DIRECTOR
(MECHANICAL ENGINEERING), BIS

Bureau of Indian Standards

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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